

Perform Welding Activities In Designated Hazardous Location Risk Assessment

Business Name:	ABN:	
Business Address:		
Contact Person:	Phone:	Email:

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	
Risk Rating & Required Action:								Notes on Hierarchy of Controls:	
4A Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before the task starts. Senior supervisor sign-off needed.								1. Eliminate	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
Consequence Scale:								Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation				
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution				
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage				
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment				
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Preparation	Exposure to hazardous fumes, Insufficient lighting	3H	<p>Proper ventilation systems to be installed and used</p> <p>Conduct workplace lighting assessment and correct deficiencies</p> <p>Use local exhaust ventilation where necessary</p> <p>Provide adequate training about hazardous materials</p> <p>Ensure emergency procedures are up-to-date and accessible</p> <p>Supply appropriate PPE including respirators and face shields</p> <p>Conduct awareness sessions about welding hazards</p> <p>Ensure all workers are aware of MSDs for materials used</p> <p>Enforce routine air quality monitoring</p> <p>Establish and maintain an exclusion zone</p>	2M
2. Equipment Inspection	Faulty equipment, Improper connections	3H	<p>Perform regular equipment maintenance checks</p> <p>Ensure all equipment is tagged and tested</p> <p>Train personnel on correct equipment handling</p> <p>Use only certified equipment and tools</p> <p>Implement an equipment inspection checklist</p> <p>Have a qualified electrician inspect electrical connections</p> <p>Record all maintenance and repair activities</p> <p>Replace faulty equipment immediately</p> <p>Regularly review manufacturer guidelines</p> <p>Perform pre-operation equipment tests</p>	1L
3. Area Isolation	Unauthorized access, Inadequate barrier placement	3H	<p>Install proper signage indicating restricted areas</p> <p>Erect barriers and warning tapes around the work zone</p> <p>Assign a responsible person to control access</p> <p>Use security personnel if necessary</p> <p>Conduct drills for unauthorized access scenarios</p> <p>Regularly inspect barriers for integrity</p> <p>Document all incidents of unauthorized access</p> <p>Provide clear instructions on the importance of isolation</p>	2M

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			Maintain a log of personnel entering the work area Post emergency contacts conspicuously	
4. PPE Compliance Check	Improper PPE use, PPE not suited for the activity	2M	[REDACTED]	1L
5. Gas Cylinder Handling	Gas leaks, Improper storage	3H	[REDACTED]	2M
6. Pre-Start Safety Check	Overlooked safety hazards, Equipment malfunctions	3H	[REDACTED]	2M

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7. Welding Process Monitoring	Accidental fire, Inadequate skill level	4A		2M
8. Post-Operation Equipment Care	Residual material hazards, equipment deactivation	2M		1L
9. Waste Disposal	Improper waste segregation, Environmental contamination	3H		2M

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10. Site Cleanliness and Order	Trip hazards, Clutter accumulation	2M		1L
11. Emergency Response Drills	Inadequate procedure knowledge, Delayed emergency services response	3H		2M
12. Work Environment Assessment	Noise exposure, Poor air quality	3H		2M

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13. Welding Procedure Validation	Non-compliant welds, Material incompatibility	3H		2M
14. Communication Protocols	Miscommunication of hazards, Ambiguous instructions	3H		2M
15. Hot Work Permitting	Unauthorised hot work, Condition changes unaccounted for	4A		2M

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			<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	
16. Incident Reporting	Unreported incidents, Incomplete incident analysis	3H	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	2M
17. Health Surveillance	Health deterioration, Undetected chronic exposure effects	3H	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	2M
18. Confined Space Entry	Oxygen deficiency, Entrapment	4A	<div></div> <div></div> <div></div>	2M

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19. Height Work Procedures	Fall risk, Equipment drop hazards	4A		2M
20. Documentation and Record Keeping	Incomplete records, Inaccessible documentation	3H		2M

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES IF ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory

Work Health and Safety Act 2011

Work Health and Safety Regulations 2011

Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>

Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>

Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>

Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

Victoria

Occupational Health and Safety Act 2004

Occupational Health and Safety Regulations 2017

Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>

Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>

Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

Western Australia

Work Health and Safety Act 2020

Work Health and Safety Regulations 2022

Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>

Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 2011

Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>

Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>

Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

South Australia

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>

Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

Tasmania

Work Health and Safety Act 2012

Work Health and Safety (Transitional and Consequential Provisions) Act 2012

Work Health and Safety Regulations 2012

Work Health and Safety (Transitional) Regulations 2012

Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>

Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.